

Amendment
Inventor: Henry PFEIFFER
Attorney Docket No.: 964-1722

REMARKS

This paper is responsive to the Final Office Action dated November 22, 2002 ("OA"), corresponding to the above identified patent application. Claims 3-16 and 39-46 are pending, including independent claims 3, 39, 43 and 44. Examiner withdrew claims 43-46 in the OA. In this Amendment, Claims 3 and 39 are amended to more accurately describe the unique features of the invention. Claim 40 is canceled.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

The amendments to Claims 3 and 39 better identify the four edges of the foam blocks as substantially identical. The blocks can be stacked in a staggered pattern without impairing the function of the foam blocks. The versatility of the blocks is a significant advantage over previous foam block concrete forms.

The amendment to claim 39 also better describes the ability of the blocks to be stacked regardless of vertical or longitudinal orientation. The uniformity of the four perimeter edges allows the blocks to be stacked in any orientation. The blocks can be rotated 90°, 180°, or 270°, around the vertical, horizontal longitudinal, and horizontal transverse axes, and still connect securely with the blocks around them. When stacking the foam blocks, the top-most block can be shifted left or right longitudinally along the top of the bottom block, and still fit the bottom block securely. This increases the utility of the foam blocks by making concrete wall formation quicker and more efficient.

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Claim Rejections under §102

As amended, claims 3-16, 39 and 40 are not anticipated by Cymbala. Cymbala discloses foam blocks with different types of engaging members for the perimeter edges. The engaging means found on the horizontal edges of Cymbala foam blocks are a specialized tongue and groove arrangement that requires Cymbala blocks to be stacked in a very special arrangement. A Cymbala block can not be inverted and placed on top of a non-inverted Cymbala block. The non-uniform tongue and groove arrangement gives Cymbala blocks a definite top and bottom side, which inhibits efficient stacking of the blocks. This differs from the uniform crenulations of the present invention, which allow the blocks of the present invention to be inverted and still stacked on non-inverted blocks.

The engaging members used for the top and bottom edges are very different from the engaging members used for the side edges. The foam block concrete forms disclosed by Cymbala are not able to be stacked in a staggered pattern or connected regardless of vertical or horizontal orientation.

Cymbala has specialized tongue and groove engaging means that require exact alignment. This precision is necessary because Cymbala requires the flanges of the ties to be aligned exactly. The properly aligned ties form a continuous, vertical flange for attaching finishing materials. The Cymbala engaging means do not allow for flexibility when stacking the foam blocks, instead they require precise placement of the blocks that aligns the flanges. Cymbala blocks can not be stacked in a staggered pattern because of these features. The present invention does not require the aligned engaging means that Cymbala requires.

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Another improvement of the present invention is the ability to stack the foam blocks without concern for the orientation of the blocks. Cymbala discloses blocks that can not be rotated 90° and still connect with adjacent blocks. The versatility of the present invention makes for more efficient assembly of forms for concrete walls.

Claims 3-16, and 39 are not anticipated by Mensen, because Mensen likewise discloses two different types of engaging means for the edges of the foam block. The block disclosed by Mensen has alternating upper and lower end parts 344 and 346, with tongue and groove fittings, for connecting adjacent blocks in a row. This design works well to create corners or directional changes of varying angles in a form wall, but is not suitable for versatile stacking as described above. The end parts require the blocks to be stacked in alignment, not staggered. Further, the end plates 44 and 46 should form a continuous strip over the entire height of the wall for attaching interior or exterior wall cladding, which would discourage staggered stacking. The blocks disclosed by Mensen have tops and bottoms that must be connected to other tops and bottoms, and will not connect to sides.

Claims 3-5, 8-16, and 39-42 are not anticipated by Beliveau. Beliveau discloses a foam block concrete form that has one type of engaging means on the top and bottom edges and no engaging means on the sides. The top and bottom edges use a checkerboard-type relief design for connecting to the blocks above or below. It is unclear from Fig. 1 of Beliveau what configuration the engaging means have on the end not pictured in the figure. From the drawing, it does not appear that the Beliveau block can be rotated 90° around its horizontal transverse axis and still connect to a lower block. The engaging means are not designed to allow for aligned stacking regardless of the blocks orientation. The blocks disclosed by Beliveau can not be

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rotated a quarter turn and still connected to adjacent blocks. Beliveau further discloses fasteners 58 in the flanges for connecting a flange with the flanges of blocks located above and below the flange, as shown in Fig. 3. This design does not allow the blocks to be stacked in a staggered pattern.

Claim Rejections under §103

Claims 6 and 39 are patentable over Beliveau in view of Horobin or Mensen. As discussed above, the blocks of the present invention can be stacked in a staggered pattern or regardless of orientation. The blocks can be rotated so any one of the four perimeter sides is on top, and still connect to the surrounding blocks. The combination of Beliveau with Horobin would not produce the present invention because the foam blocks would still require alignment of the flanges with blocks above and below. The combination of Beliveau with Mensen would not produce the present invention for the same reason. Further, Beliveau, Horobin and Mensen, in any combination, teach blocks that can not be inverted and still connect to adjacent blocks, because they all have non-uniform engaging means on the on the top and bottom sides.

Claim 7 of the present invention is patentable over Beliveau in light of Mensen or Cymbala. The corner blocks of the present invention have teeth and sockets arranged in a pattern that allows the blocks to be inverted and still stack on other blocks. The corner blocks can function as either a right corner or left corner. Beliveau also discloses corner blocks with vertically interlocking flanges. The corner blocks of the present invention do not have interlocking flanges, allowing corner blocks of differing lengths to be stacked to form a staggered pattern.

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Claim Rejections under §112

Claim 40 has been canceled.

Conclusion

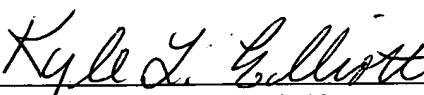
Claims 3 and 39 have been amended to better claim the advantages of the present invention. Claim 40 has been canceled. Favorable action and allowance of the claims is therefore respectfully requested.

If any issue regarding the allowability of any of the pending claims in the present application could be readily resolved, or if other action could be taken to further advance this application such as an Examiner's amendment, or if the Examiner should have any questions regarding this amendment, it is respectfully requested that Examiner please telephone Applicants' undersigned attorney in this regard.

The Commissioner is hereby authorized to charge any fees due in respect to this application to Deposit Account No. 11-0160.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

3. A foam block concrete form comprising:

a pair of opposing foam panels spaced parallel from each other, each panel having at least one substantially planar rectangular segment having horizontal [at least one] pairs of opposing longitudinal edges and a vertical pair of longitudinal edges;

engaging means formed along the [at least one pair of opposing] pairs of longitudinal edges for removably retaining [a] longitudinal edges having similar and complimentary engaging means formed therealong when adjacent thereto, so the foam panels can be inverted in a side-to-side fashion or an end-to-end fashion (and the engaging means still retaining the longitudinal edges having similar engaging means); and

a plurality of substantially planar ties positioned transverse to and between the pair of opposing foam panels, each tie including a web portion separating a pair of opposing flange members encapsulated within respective opposing foam panels along a respective lateral panel axis.

39. A foam block concrete form comprising:

a pair of opposing foam panels spaced apart in a substantially parallel relationship, each panel including [at least one] pairs of opposing [longitudinal] perimeter edges;

a plurality of ties extending between and connecting the foam panels;

a plurality of teeth positioned along each of the [longitudinal] perimeter edges; and

a plurality of sockets defined by the teeth, forming a configuration of substantially similar

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teeth and sockets along each perimeter edge, operable to permit the [stacking of] foam block[s] to be connected to a perimeter edge of a substantially similar foam block with [both upon and below adjacent blocks, which have] a substantially identical configuration of teeth and sockets along at least one perimeter edge.

40. Canceled